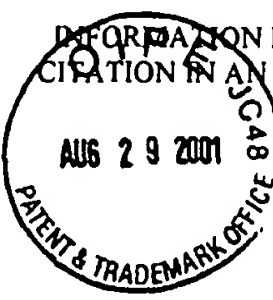
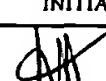


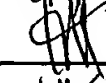

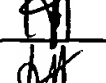


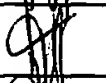
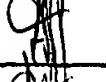




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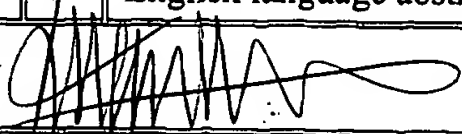
U.S. PATENT DOCUMENTS

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	2,824,620	2/25/1958	De Rosset	95	56	
	3,144,312	8/11/1964	Mertens	48	95	
	3,208,198	9/28/1965	Rubin	95	56	
	3,336,730	8/22/1967	McBride et al.	95	56	
	3,338,681	8/29/1967	Kordesch	422	211	
	3,350,176	10/31/1967	Green et al.	422	109	
	3,368,329	2/13/1968	Eguchi et al.	968	888	
	3,450,500	6/17/1969	Setzer et al.	423	653	
	3,469,944	9/30/1969	Bocard et al.	423	650	
	3,520,803	7/21/1970	Iaconelli	210	640	
	3,524,819	8/18/1970	Guerrieri	48	198.6	
	3,564,819	2/23/1971	Neulander et al.	96	7	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
JP 45-14404	5/1970	Japan			X
JP 45-2642	9/1970	Japan			X

OTHER DOCUMENTS

	English language abstract of Japanese Patent No. 432150, 1992.
	English language abstract of Japanese Patent No. 513230, 1993.
EXAMINER 	DATE CONSIDERED 1/18/2006

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APPLICATION NUMBER

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APPLICANTS

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and TODD STUDEBAKER

FILING DATE

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U.S. PATENT DOCUMENTS


EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
AA	3,665,680	5/30/1972	Heuser	96	10	
AA	3,881,897	5/6/1975	Faure et al.	96	9	
AA	3,920,416	11/18/1975	Houseman	48	95	
AA	3,955,941	5/11/1976	Houseman et al.	48	95	
AA	3,972,695	8/3/1976	Buckley et al.	96	10	
AA	3,982,910	9/28/1976	Houseman et al.	48	61	
AA	4,003,725	1/18/1977	Bunn, Jr. et al.	96	8	
AA	4,056,373	11/1/1977	Rubin	96	10	
AA	4,098,959	7/4/1978	Fanciullo	429	25	
AA	4,098,960	7/4/1978	Gagnon	429	25	
AA	4,254,086	3/3/1981	Sanders	422	187	
AA	4,381,641	5/3/1983	Madgavkar et al.	60	777	

FOREIGN PATENT DOCUMENTS


	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO
AA	JP 1-145302	6/1989	Japan			X
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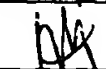
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EXAMINER	DATE CONSIDERED 1/18/2006

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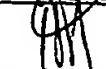

U.S. PATENT DOCUMENTS


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	4,430,304	2/7/1984	Spurrier et al.	422	204	
	4,444,158	4/24/1984	Yoon	123	1A	
	4,468,235	8/28/1984	Hill	95	46	
	4,504,447	3/12/1985	Spurrier et al.	422	204	
	4,654,063	3/31/1987	Auvil et al.	62	624	
	4,684,581	8/4/1987	Struthers	422	19	
	4,713,234	12/15/1987	Weirich et al.	423	648.1	
	4,810,485	3/7/1989	Marianowski et al.	456	577	
	4,849,187	7/18/1989	Uozu et al.	347	4	
	4,981,676	1/1/1991	Minet et al.	423	652	
	5,158,581	10/27/1992	Coplan	95	52	
	5,198,002	3/30/1993	Mei et al.	95	275	

FOREIGN PATENT DOCUMENTS

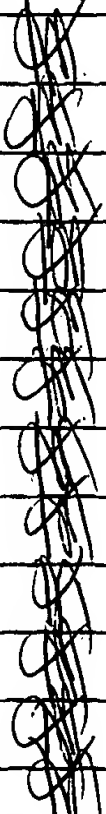
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	EP 0434562 A1	6/26/1991	EPO			X	
	JP 6-134244	5/1994	Japan				X

OTHER DOCUMENTS


	English language abstract of Japanese Patent No. 604070, 1994.
	English language abstract of Japanese Patent No. 710910, 1995.
EXAMINER 	DATE CONSIDERED 1/18/2006

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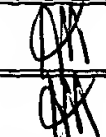
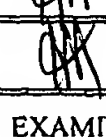
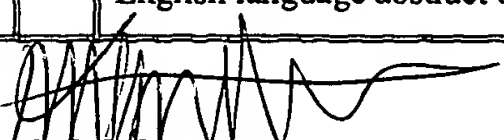
U.S. PATENT DOCUMENTS


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	5,205,841	4/27/1993	Vaiman	95	46	
	5,215,729	6/1/1993	Buxbaum	423	248	
	5,225,080	7/6/1993	Karbachsch et al.	210	321.75	
	5,226,928	7/13/1993	Makabe et al.	48	94	
	5,229,102	7/20/1993	Minet et al.	423	652	
	5,326,550	7/5/1994	Adris et al.	423	652	
	5,354,547	10/11/1994	Rao et al.	423	650	
	5,376,167	12/27/1994	Broutin et al.	96	8	
	5,382,271	1/17/1995	Ng et al.	48	61	
	5,449,848	9/12/1995	Itoh	585	430	
	5,458,857	10/17/1995	Collins et al.	422	198	
	5,498,278	3/12/1996	Edlund	96	11	

FOREIGN PATENT DOCUMENTS


	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO	
	WO 97/43796	11/1997	WIPO				X
	WO 99/30806	6/1999	WIPO			X	

OTHER DOCUMENTS

	English language abstract of Japanese Patent No. 11116202, 1999.
	English language abstract of Great Britain Patent No. 2,305,186.
EXAMINER 	DATE CONSIDERED 1/18/2006

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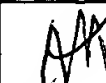
U.S. PATENT DOCUMENTS

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	5,500,122	3/19/1996	Schwartz	210	321.75	
	5,516,344	5/14/1996	Corrigan	48	127.9	
	5,518,530	5/21/1996	Sakai et al.	96	11	
	5,520,807	5/28/1996	Myrna et al.	210	321.75	
	5,525,322	6/11/1996	Willms	423	653	
	5,536,405	7/16/1996	Myrna et al.	210	321.75	
	5,580,523	12/3/1996	Bard	422	50	
	5,589,599	12/31/1996	McMullen et al.	585	240	
	5,637,259	6/10/1997	Galuszka et al.	252	373	
	5,639,431	6/17/1997	Shirasaki et al.	422	212	
	5,645,626	7/8/1997	Edlund et al.	95	56	
	5,679,249	10/21/1997	Fendya et al.	210	321.63	


FOREIGN PATENT DOCUMENTS

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EP 1065741 A2	1/3/2001	EPO			X

OTHER DOCUMENTS








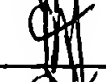

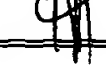

	Chai, M., et al., "Promotion of Methane Steam Reforming Using Ruthenium-Dispersed Microporous Alumina Membrane Reactor," Chemistry Letters, The Chemical Society of Japan, pp. 41-44 (1993).
	"Compact, Lightweight Fuel Reformer for Fuel Cells," Argonne National Laboratory/U.S. Department of Energy (July, 1996).

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	1/18/2006

FORM PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION 	DOCKET NUMBER	APPLICATION NUMBER
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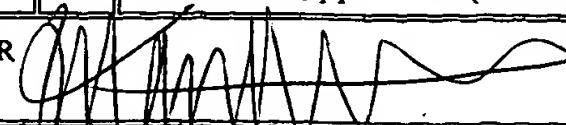
U.S. PATENT DOCUMENTS

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	5,734,092	3/31/1998	Wang et al.	73	23.25	
	5,738,708	4/14/1998	Peachey et al.	95	56	
	5,741,605	4/21/1998	Gillett et al.	429	31	
	5,782,960	7/21/1998	Ogawa et al.	96	11	
	5,795,666	8/18/1998	Johnssen	429	17	
	5,811,065	9/22/1998	Sterenber	422	198	
	5,821,185	10/13/1998	White et al.	502	4	
	5,833,723	11/10/1998	Kuwabara et al.	48	61	
	5,858,314	1/12/1999	Hsu et al.	422	211	
	5,861,137	1/19/1999	Edlund	14	77.1	
	5,874,051	2/23/1999	Heil et al.	422	171	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO

OTHER DOCUMENTS

	Edlund, Dr. David and William Pledger, "Development of a Compact and Economical Steam Reformer for Fuel-Cell Systems," Fifth Grove Fuel Cell Symposium, Commonwealth Institute, London, U.K., p. 6 (September 22-23, 1997).
	Edlund, David J. and William A. Pledger, "The Practical Use of Metal-Membrane Reactors for Industrial Applications," The 1995 Membrane Technology Reviews, pp. 89-97 (November, 1994).
EXAMINER	DATE CONSIDERED
	1/18/2006

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APPLICATION NUMBER

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APPLICANTS

DAVID J. EDLUND, WILLIAM A. PLEDGER
and TODD STUDEBAKER

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U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FIL. DATE IF APPROP.
	5,888,273	3/30/1999	Buxbaum	95	56	
	5,932,181	8/3/1999	Kim et al.	422	188	
	5,938,800	8/17/1999	Verrill et al.	48	127.9	
	5,997,594	12/7/1999	Edlund et al.	48	76	
	6,103,411	8/15/2000	Matsubayashi et al.	429	17	
	6,120,923	9/19/2000	Van Dine et al.	429	17	
	6,152,995	11/28/2000	Edlund	96	4	
	6,165,633	12/26/2000	Negishi	429	17	
	6,171,574	1/9/2001	Juda et al.	423	648.1	
	6,190,623	2/20/2001	Sanger et al.	422	190	
	6,221,117	4/24/2001	Edlund et al.	48	76	

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO


OTHER DOCUMENTS

	Minet, R. G., et al., "Experimental Studies of A Ceramic Membrane Reactor for the Steam/Methane Reaction at Moderate Temperatures (400-700°C)," Symposium on Natural Gas Upgrading II Presented before The Division of Petroleum Chemistry, Inc., Meeting of American Chemical Society, San Francisco, California, U.S.A., pp. 245-48 (April, 1992).
	Oertel, Michael, et al., "Steam Reforming of Natural Gas with Integrated Hydrogen Separation for Hydrogen Production," Chemical Engineering Technology, Vol. 10, pp. 248-55 (1987).

EXAMINER

DATE CONSIDERED

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FORM PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION 	DOCKET NUMBER	APPLICATION NUMBER
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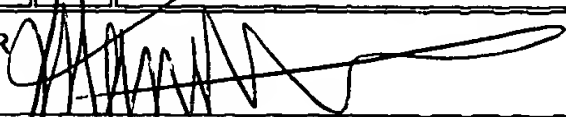
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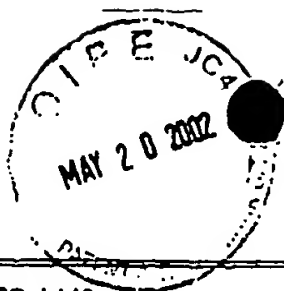
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FOREIGN PATENT DOCUMENTS

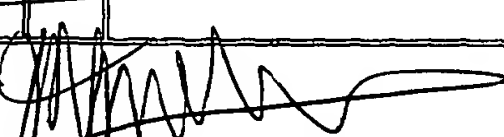
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES NO

OTHER DOCUMENTS

	Piwetz et al., "Hydrodesulfurization and Prereforming of Logistic Fuels for Use in Fuel Cell Applications," presented at the 1996 Fuel Cell Seminar held Nov. 17-20, 1996 in Orlando, Florida, pp. 780-783.
	Privette et al., "Status of SOFCo SOFC Technology Development," presented at the 1996 Fuel Cell Seminar held Nove. 17-20, 1996 in Orlando, Florida, pp. 206-209.
	Yang, Ralph T., "Gas Separation by Adsorption Processes," pp. 253-60, Butterworth Publishers, 1987.
EXAMINER 	DATE CONSIDERED 1/18/2006



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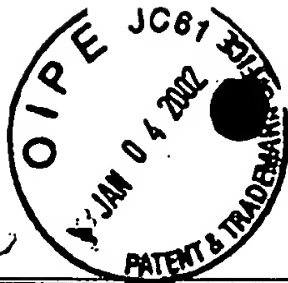
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	5,679,249	10/21/1997	Fendya et al.			
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	5,741,474	4/21/1998	Isomura et al.	423	648.1	
	5,271,916	12/21/1993	Vanderborgh et al.	423	246	
	4,869,894	9/26/1989	Wang et al.	423	650	
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FOREIGN PATENT DOCUMENTS						
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OTHER DOCUMENTS						
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XX	6,168,650	1/2/2001	Buxbaum	95	55	
XX	5,931,987	8/3/1999	Buxbaum	95	55	
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FOREIGN PATENT DOCUMENTS						
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EXAMINER			DATE CONSIDERED 1/18/2006			